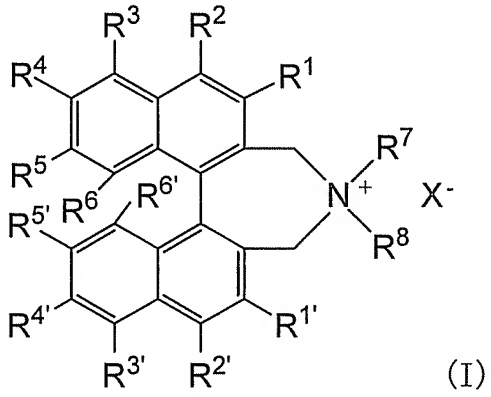
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A compound represented by the following formula (I) below:



(I)

wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ are groups independently selected from the group consisting of :

(i) a hydrogen atom;

(ii) $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group);

(iii) a cyano group;

(iv) a nitro group;

(v) a carbamoyl group;

(vi) an N-(C_1 to C_4 alkyl)carbamoyl group;

(vii) an N,N-di(C_1 to C_4 alkyl)carbamoyl group;

(viii) $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched);

(ix) a C_1 to C_6 alkyl group that may be branched or form a cyclic group;

(x) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group;

(xi) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group;

(xii) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(xiii) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each

independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(xiv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a halogen atom, and

-S-R, -SO-R, or -SO_2-R (where R is a C_1 to C_4 alkyl group that may be branched);

or may be substituted with -O-CH_2-O- or -O-$(CH_2)_2$-O- at positions 3 and 4 taken together; and

(xv) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

R^7 and R^8 are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(ii) a C_1 to C_{12} alkyl group that may be branched or form a cyclic group;

(iii) a C_2 to C_{12} alkenyl group that may be branched or form a cyclic group;

(iv) a C_2 to C_{12} alkynyl group that may be branched or form a cyclic group;

(v) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vi) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4

alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vii) -$(CH_2)_p$OCONR^{10}R^{11} (where R^{10} and R^{11} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group ;

(4) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group ;

(5) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(6) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(7) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and

(8) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and p [[n]] is an integer from 1 to 12);

(viii) $-(CH_2)_qCONR^{12}R^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and q [[n]] is an integer from 1 to 12);

(ix) -$(CH_2)_rNR^{12}COR^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and r [[n]] is an integer from 1 to 12);

(x) -$(CH_2)_sNR^{12}R^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and s [[n]] is an integer from 1 to 12);

(xi) $-(CH_2)_tY-OR^{12}$ (where Y is a C_1 to C_4 divalent saturated hydrocarbon group that may be branched, and R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and t [[n]] is an integer from 1 to 12);

(xii) -$(CH_2)_u$-OR^{12} (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and u [[n]] is an integer from 1 to 12);

(xiii) $-(CH_2)_v-S-R^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each

independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and v [[n]] is an integer from 1 to 12);

(xiv) -$(CH_2)_w$-SO-R^{12} (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and w [[n]] is an integer from 1 to 12); and

(xv) $-(CH_2)_x-SO_2-R^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4

alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

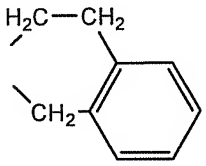
an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

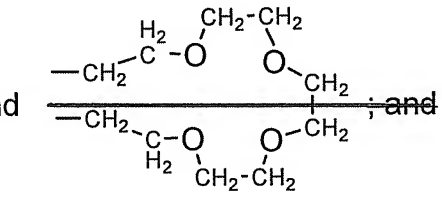
-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

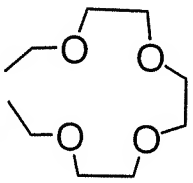
and x [[n]] is an integer from 1 to 12); or R^7 and R^8 are taken together to form a divalent group selected from the group consisting of: $-(CH_2)_m$ (where m is an integer from 2 to 8);



; and



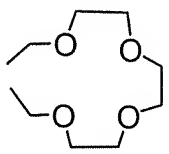
; and

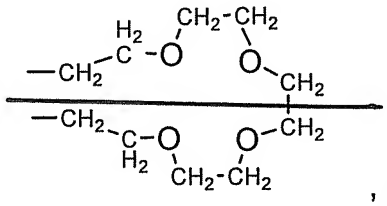


; and

wherein X^- is an anion selected from the group consisting of a halide anion, SCN^-, HSO_4^- and HF_2^-,

provided that in a case where R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ are all hydrogen atoms and X- is a halide anion, R^7 and R^8 are not both methyl groups, a combination of a methyl group and an n-butyl group, a combination of a methyl group and an isopropyl group, or a combination of an allyl group and a hydrogen atom, or R^7 and R^8 are not taken together to form $-(CH_2)_4-$, $-(CH_2)_5-$ or





, and

further provided that in a case where R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ are all hydrogen atoms and X^- is a bromide ion or an iodide ion, R^7 and R^8 are not both cyclohexyl groups or allyl groups.

2. (previously presented) The compound of claim 1, wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ of the compound represented by the formula (I) are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(xiv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a halogen atom, and

-S-R, -SO-R, or $-SO_2$-R (where R is a C_1 to C_4 alkyl group that may be branched);

or may be substituted with $-O-CH_2-O-$ or $-O-(CH_2)_2-O-$ at positions 3 and 4 taken together; and

(xv) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

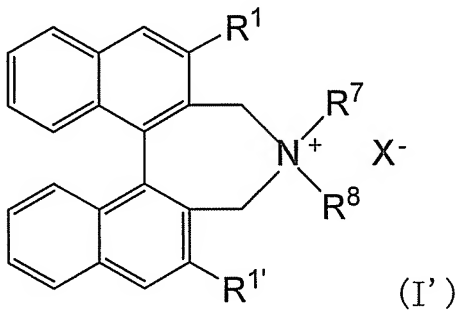
an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom.

3. (Original) The compound of claim 2, wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ of the compound represented by the formula (I) are groups independently selected from the group consisting of a hydrogen atom, a 3,4,5-trifluorophenyl group, a 3,4,5-trichlorophenyl group, a 3,4-difluorophenyl group, a 3-nitrophenyl group, a 3-cyanophenyl group, a benzothiophenyl-2-yl group, a 3,5-difluorophenyl group, a 3-trifluoromethylphenyl group, a 2,4-difluorophenyl group, a 3-methylsulfonylphenyl group, and a 2,3-bis(trifluoromethyl)phenyl group.

4. (previously presented) The compound of claim 1, wherein the compound represented by the formula (I) is a compound represented by the following formula (I'):



(I')

(where R^1 and $R^{1'}$ are groups independently selected from the group consisting of a hydrogen atom, a 3,4,5-trifluorophenyl group, a 3,4,5-trichlorophenyl group, a 3,4-difluorophenyl group, a 3-nitrophenyl group, a 3-cyanophenyl group, a benzothiophenyl-2-yl group, a 3,5-difluorophenyl group, a 3-trifluoromethylphenyl group, a 2,4-difluorophenyl group, a 3-methylsulfonylphenyl group, and a 2,3-bis(trifluoromethyl)phenyl group, and R^7, R^8 and X^- are groups independently as defined in claim 1).

5. (previously presented) The compound of claim 1, wherein R^7 and R^8 of the compound represented by the formula (I) are groups independently selected from the group consisting of:

(ii) a C_1 to C_{12} alkyl group that may be branched or form a cyclic group; and

(xii) $-(CH_2)_u-OR^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_1 to C_4 alkyl group that may be branched,

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom, and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

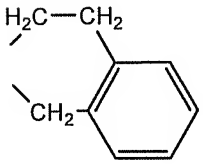
a halogen atom,

and u is an integer of 1 to 12).

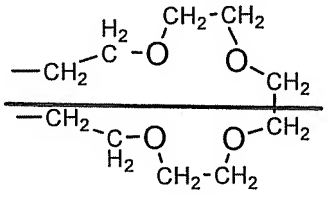
6. (Original) The compound of claim 5, wherein R^7 and R^8 of the compound represented by the formula (I) are groups independently selected from the group consisting of a methyl group, an ethyl group, an n-butyl group, an isobutyl group, an n-decyl group, and a cyclohexyl group.

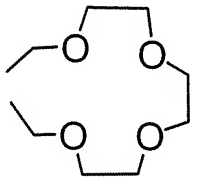
7. (Original) The compound of claim 6, wherein R^7 and R^8 of the compound represented by the formula (I) are the same.

8. (Currently amended) The compound of claim 1, wherein R^7 and R^8 of the compound represented by the formula (I) are taken together to form a divalent group selected from the group consisting of: $-(CH_2)_m-$ (where m is an integer from 2 to 8);



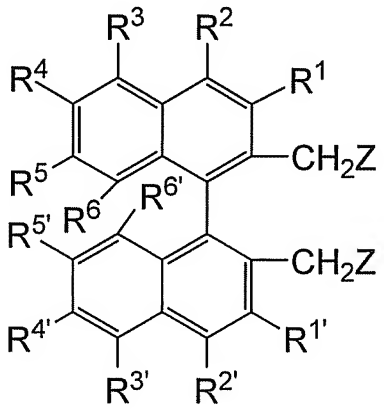
; and





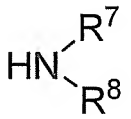
9. (Currently amended) A method for producing the compound represented by the formula (I) of claim 1, comprising:

a step of reacting a compound represented by the following formula (II):



(II)

with a secondary amine represented by the following formula (III):



(III)

in an organic solvent in the presence of an acid scavenging agent,

wherein in the formula (II), R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(ii) $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group);

(iii) a cyano group;

(iv) a nitro group;

(v) a carbamoyl group;

(vi) an N-(C_1 to C_4 alkyl)carbamoyl group;

(vii) an N,N-di(C_1 to C_4 alkyl)carbamoyl group;

(viii) $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched);

(ix) a C_1 to C_6 alkyl group that may be branched or form a cyclic group;

(x) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group;

(xi) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group;

(xii) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(xiii) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each

independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(xiv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a halogen atom, and

-S-R, -SO-R, or -SO_2-R (where R is a C_1 to C_4 alkyl group that may be branched);

or may be substituted with -O-CH_2-O- or -O-$(CH_2)_2$-O- at positions 3 and 4 taken together; and

(xv) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and

Z is a halogen atom, and

in the formula (III), R^7 and R^8 are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(ii) a C_1 to C_{12} alkyl group that may be branched or form a cyclic group;

(iii) a C_2 to C_{12} alkenyl group that may be branched or form a cyclic group;

(iv) a C_2 to C_{12} alkynyl group that may be branched or form a cyclic group;

(v) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vi) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each

independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vii) -$(CH_2)_pOCONR^{10}R^{11}$ (where R^{10} and R^{11} are each independently a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group ;

(4) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group ;

(5) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4

alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(6) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(7) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and

(8) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a

carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and p [[n]] is an integer from 1 to 12);

(viii) -$(CH_2)_qCONR^{12}R^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and q [[n]] is an integer from 1 to 12);

(ix) -$(CH_2)_rNR^{12}COR^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and r [[n]] is an integer from 1 to 12);

(x) $-(CH_2)_sNR^{12}R^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and s [[n]] is an integer from 1 to 12);

(xi) -$(CH_2)_tY$-OR^{12} (where Y is a C_1 to C_4 divalent saturated hydrocarbon group that may be branched, and R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and t [[n]] is an integer from 1 to 12);

(xii) $-(CH_2)_u-OR^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and u [[n]] is an integer from 1 to 12);

(xiii) -$(CH_2)_v$-S-R^{12} (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and v [[n]] is an integer from 1 to 12);

(xiv) -$(CH_2)_w$-SO-R^{12} (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and w [[n]] is an integer from 1 to 12); and

(xv) $-(CH_2)_x-SO_2-R^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each

independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

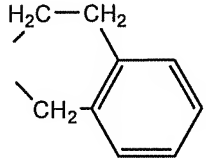
an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

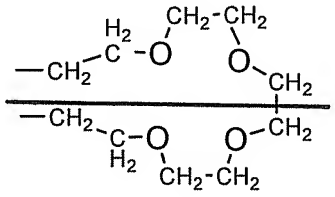
-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

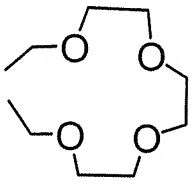
a halogen atom;

and [[n]] x is an integer from 1 to 12); or R^7 and R^8 are taken together to form a divalent group selected from the group consisting of: -$(CH_2)_m$- (where m is an integer from 2 to 8);



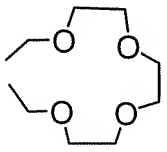
; and

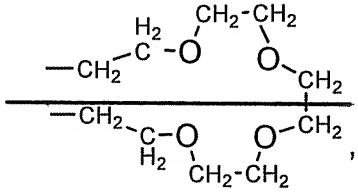




;

provided that in a case where R^1, R$^{1'}$, R^2, R$^{2'}$, R^3, R$^{3'}$, R^4, R$^{4'}$, R^5, R$^{5'}$, R^6, and R$^{6'}$ are all hydrogen atoms and X- is a halide anion, R^7 and R^8 are not both methyl groups, a combination of a methyl group and an n-butyl group, a combination of a methyl group and an isopropyl group, or a combination of an allyl group and a hydrogen atom, or R^7 and R^8 are not taken together to form -$(CH_2)_4$-, -$(CH_2)_5$- or





, and

further provided that in a case where R^1, R$^{1'}$, R^2, R$^{2'}$, R^3, R$^{3'}$, R^4, R$^{4'}$, R^5, R$^{5'}$, R^6, and R$^{6'}$ are all hydrogen atoms and X$^-$ is a bromide ion or an iodide ion, R^7 and R^8 are not both cyclohexyl groups or allyl groups.

10. (previously presented) The method of claim 9, wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ of the compound represented by the formula (II) are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(xiv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a halogen atom, and

-S-R, -SO-R, or $-SO_2$-R (where R is a C_1 to C_4 alkyl group that may be branched);

or may be substituted with $-O-CH_2-O-$ or $-O-(CH_2)_2-O-$ at positions 3 and 4 taken together; and

(xv) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

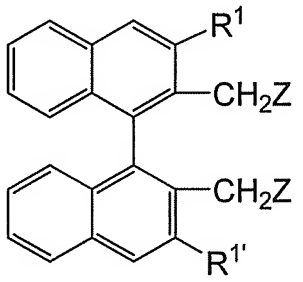
an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom.

11. (Original) The method of claim 10, wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ of the compound represented by the formula (II) are groups independently selected from the group consisting of a hydrogen atom, a 3,4,5-trifluorophenyl group, a 3,4,5-trichlorophenyl group, a 3,4-difluorophenyl group, a 3-nitrophenyl group, a 3-cyanophenyl group, a benzothiophenyl-2-yl group, a 3,5-difluorophenyl group, a 3-trifluoromethylphenyl group, a 2,4-difluorophenyl group, a 3-methylsulfonylphenyl group, and a 2,3-bis(trifluoromethyl)phenyl group.

12. (previously presented) The method of claim 9, wherein the compound represented by the formula (II) is a compound represented by the following formula (II'):



(II')

(where R^1 and $R^{1'}$ are groups independently selected from the group consisting of a hydrogen atom, a 3,4,5-trifluorophenyl group, a 3,4,5-trichlorophenyl group, a 3,4-difluorophenyl group, a 3-nitrophenyl group, a 3-cyanophenyl group, a benzothiophenyl-2-yl group, a 3,5-difluorophenyl group, a 3-trifluoromethylphenyl group, a 2,4-difluorophenyl group, a 3-methylsulfonylphenyl group, and a 2,3-bis(trifluoromethyl)phenyl group, and R^7, R^8 and Z are groups independently as defined in claim 9).

13. (previously presented) The method of claim 9, wherein R^7 and R^8 of the secondary amine represented by the formula (III) are groups independently selected from the group consisting of:

(ii) a C_1 to C_{12} alkyl group that may be branched or form a cyclic group; and

(xii) $-(CH_2)_u-OR^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_1 to C_4 alkyl group that may be branched,

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom, and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

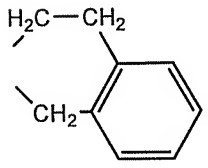
a halogen atom,

and u is an integer of 1 to 12).

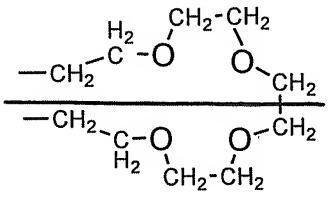
14. (previously presented) The method of claim 13, wherein R^7 and R^8 of the secondary amine represented by the formula (III) are groups independently selected from the group consisting of a methyl group, an ethyl group, an n-butyl group, an isobutyl group, an n-decyl group, and a cyclohexyl group.

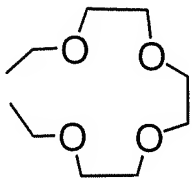
15. (previously presented) The method of claim 14, wherein R^7 and R^8 of the secondary amine represented by the formula (III) are the same.

16. (Currently amended) The method of claim 9, wherein R^7 and R^8 of the secondary amine represented by the formula (III) are taken together to form a divalent group selected from the group consisting of: $-(CH_2)_m-$ ~~$-(CH_2)y-$~~ (where m ~~y~~ is an integer from 2 to 8);



; and





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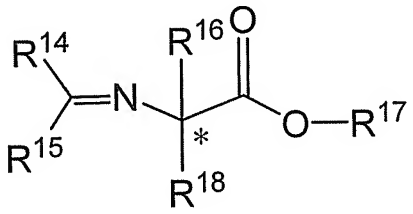
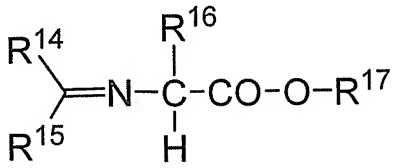
17. (Withdrawn) A method for stereoselectively producing a compound represented by the formula (VI):



(VI)

comprising:

alkylating a compound represented by the formula (IV)

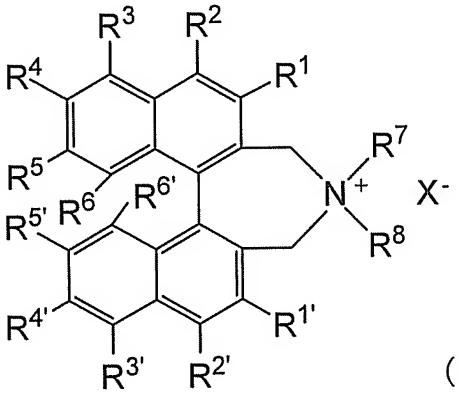


(IV)

with a compound of the formula (V):

$$R^{18}\text{-}W \qquad (V)$$

using a compound represented by the formula (I) that is pure with respect to axis symmetry as a phase-transfer catalyst:



(I)

in a medium in the presence of an inorganic base,

wherein in the formula (I), R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(ii) $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group);

(iii) a cyano group;

(iv) a nitro group;

(v) a carbamoyl group;

(vi) an N-(C_1 to C_4 alkyl)carbamoyl group;

(vii) an N,N-di(C_1 to C_4 alkyl)carbamoyl group;

(viii) $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched);

(ix) a C_1 to C_6 alkyl group that may be branched or form a cyclic group;

(x) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group;

(xi) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group;

(xii) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(xiii) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(xiv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a

carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a halogen atom, and

-$S(O)_n$-R (where n is 0, 1 or 2, and R is a C_1 to C_4 alkyl group that may be branched);

or may be substituted with -O-$(CH_2)_m$-O- (where m is 1 or 2) at positions 3 and 4 taken together; and

(xv) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

R^7 and R^8 are each independently a monovalent organic group or are taken together to form a divalent organic group,

X- is a halide anion,

in the formulae (IV) and (VI),

R^{14} and R^{15} are each independently

(i) a hydrogen atom; or

(ii) an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a C_1 to C_5 alkoxy group that may be branched, or a halogen atom;

with the proviso the case where both R^{14} and R^{15} are hydrogen atoms is excluded,

R^{16} is a group selected from the group consisting of:

(i) a hydrogen atom;

(ii) a C_1 to C_{10} alkyl group that may be branched or form a cyclic group;

(iii) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group;

(iv) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group;

(v) an aralkyl group, wherein the aryl group of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4

alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vi) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vii) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(viii) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4

alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

R^{17} is a C_1 to C_8 alkyl group that may be branched or form a cyclic group),

in the formulae (V) and (VI),

R^{18} is a group selected from the group consisting of:

(i) a C_1 to C_{10} alkyl group that may be branched or form a cyclic group;

(ii) a C_3 to C_9 allyl group or substituted allyl group that may be branched or form a cyclic group;

(iii) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group;

(iv) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group;

(v) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of;

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vi) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vii) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of;

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(viii) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(ix) a C_3 to C_9 propargyl group or substituted propargyl group that may be branched, and

in the formula (V),

W is a functional group having a leaving ability, and

in the formula (VI),

* shows a newly produced asymmetric center.

18. (Withdrawn) The method of claim 17, wherein R^7 and R^8 of the compound represented by the formula (I) are groups independently selected from the group consisting of:

(i) a C_1 to C_{12} alkyl group that may be branched or form a cyclic group and/or may be substituted with a halogen atom;

(ii) a C_2 to C_{12} alkenyl group that may be branched or form a cyclic group and/or may be substituted with a halogen atom;

(iii) a C_2 to C_{12} alkynyl group that may be branched or form a cyclic group and/or may be substituted with a halogen atom;

(iv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each

independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(v) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(vi) -$(CH_2)_n$OCONR^{10}R^{11} (where R^{10} and R^{11} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) a C_2 to C_6 alkenyl group that may be branched or form a cyclic group ;

(4) a C_2 to C_6 alkynyl group that may be branched or form a cyclic group ;

(5) an aralkyl group, wherein the aryl moiety of the aralkyl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(6) a heteroaralkyl group having a heteroaryl moiety, wherein the heteroaryl moiety may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

(7) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4

alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(8) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-NR^{20}R^{21} (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-NHCOR^9 (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(vii) $-(CH_2)_nCONR^{12}R^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(viii) $-(CH_2)_nNR^{12}COR^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(ix) $-(CH_2)_nNR^{12}R^{13}$ (where R^{12} and R^{13} are groups independently selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a

carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(x) -$(CH_2)_nY$-OR^{12} (where Y is a C_1 to C_4 divalent saturated hydrocarbon group that may be branched, and R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(xi) $-(CH_2)_n-OR^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a

carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(xii) -$(CH_2)_n$-S-R^{12} (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12);

(xiii) -$(CH_2)_n$-SO-R^{12} (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12); and

(xiv) $-(CH_2)_n-SO_2-R^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom;

(2) a C_1 to C_4 alkyl group that may be branched;

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, -$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or -$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

-$NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

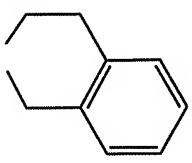
an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

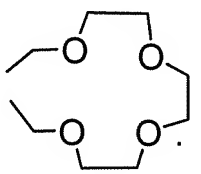
-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom;

and n is an integer from 1 to 12); or R^7 and R^8 are taken together to form a divalent group selected from the group consisting of: -$(CH_2)_m$- (where m is an integer from 2 to 8);



; and



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19. (Withdrawn) The method of claim 18, wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ of the compound represented by the formula (I) are groups independently selected from the group consisting of:

(i) a hydrogen atom;

(xiv) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a halogen atom, and

$-S(O)_n-R$ (where n is 0, 1 or 2, and R is a C_1 to C_4 alkyl group that may be branched);

or may be substituted with $-O-(CH_2)_m-O-$ (where m is 1 or 2) at positions 3 and 4 taken together; and

(xv) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

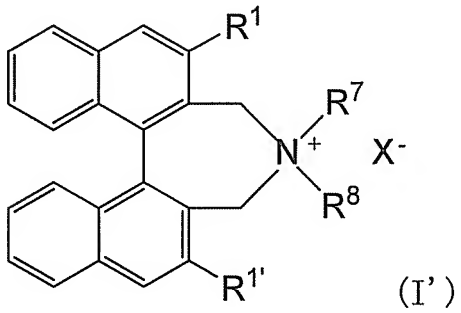
an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom.

20. (Withdrawn) The method of claim 19, wherein R^1, $R^{1'}$, R^2, $R^{2'}$, R^3, $R^{3'}$, R^4, $R^{4'}$, R^5, $R^{5'}$, R^6, and $R^{6'}$ of the compound represented by the formula (I) are groups independently selected from the group consisting of a hydrogen atom, a 3,4,5-trifluorophenyl group, a 3,4,5-trichlorophenyl group, a 3,4-difluorophenyl group, a 3-nitrophenyl group, a 3-cyanophenyl group, a benzothiophenyl-2-yl group, a 3,5-difluorophenyl group, a 3-trifluoromethylphenyl group, a 2,4-difluorophenyl group, a 3-methylsulfonylphenyl group, and a 2,3-bis(trifluoromethyl)phenyl group.

21. (Withdrawn) The method of claim 20, wherein the compound represented by the formula (I) is a compound represented by the following formula (I'):



(I')

(where R^1 and $R^{1'}$ are groups independently selected from the group consisting of a hydrogen atom, a 3,4,5-trifluorophenyl group, a 3,4,5-trichlorophenyl group, a 3,4-difluorophenyl group, a 3-nitrophenyl group, a 3-cyanophenyl group, a benzothiophenyl-2-yl group, a 3,5-difluorophenyl group, a 3-trifluoromethylphenyl group, a 2,4-difluorophenyl group, a 3-methylsulfonylphenyl group, and a 2,3-bis(trifluoromethyl)phenyl group, and R^7, R^8 and X^- are groups independently as defined in claim 17).

22. (Wtihdrawn) The method of claim 17, wherein R^7 and R^8 of the compound represented by the formula (I) are groups independently selected from the group consisting of:

(ii) a C_1 to C_{12} alkyl group that may be branched or form a cyclic group; and

(xii) $-(CH_2)_n-OR^{12}$ (where R^{12} is a group selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_1 to C_4 alkyl group that may be branched,

(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

$-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

a halogen atom, and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C_1 to C_4 alkyl group that may be branched,

a C_1 to C_5 alkoxy group that may be branched,

an aryl group that may be substituted with a C_1 to C_4 alkyl group that may be branched, a cyano group, $-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group), a nitro group, a carbamoyl group, an N-(C_1 to C_4 alkyl)carbamoyl group, an N,N-di(C_1 to C_4 alkyl)carbamoyl group, or $-NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched),

a cyano group,

$-NR^{20}R^{21}$ (where R^{20} and R^{21} are each independently a hydrogen atom or a C_1 to C_4 alkyl group),

a nitro group,

a carbamoyl group,

an N-(C_1 to C_4 alkyl)carbamoyl group,

an N,N-di(C_1 to C_4 alkyl)carbamoyl group,

-$NHCOR^9$ (where R^9 is a C_1 to C_4 alkyl group that may be branched), and

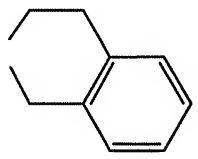
a halogen atom,

and n is an integer of 1 to 12.

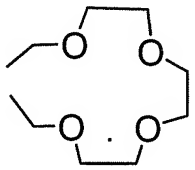
23. (Withdrawn) The method of claim 22, wherein R^7 and R^8 of the compound represented by the formula (I) are groups independently selected from the group consisting of a methyl group, an ethyl group, an n-butyl group, an isobutyl group, an n-decyl group, and a cyclohexyl group.

24. (Withdrawn) The method of claim 23, wherein R^7 and R^8 of the compound represented by the formula (I) are the same.

25. (Withdrawn) The method of claim 17, wherein R^7 and R^8 of the compound represented by the formula (I) are taken together to form a divalent group selected from the group consisting of: -$(CH_2)_m$- (where m is an integer from 2 to 8);



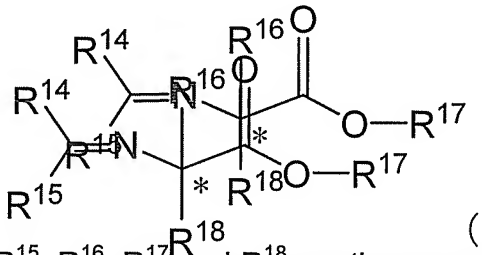
; and



26. (Withdrawn) The method of claim 17, wherein the compound represented by the formula (I) is used in a ratio of 0.001 mol % to 0.1 mol % per 1 mol of the compound represented by the formula (IV).

27. (Withdrawn) The method of claim 17, wherein the compound represented by the formula (I) is used in a ratio of 0.005 mol % to 0.05 mol % per 1 mol of the compound represented by the formula (IV).

28. (Withdrawn) A method for producing an optically active α-amino acid, comprising: hydrolyzing an imino group ($R^{14}R^{15}C=N-$) and an ester group ($-CO_2R^{17}$) of the compound represented by the formula (VI) that is obtained by the method of any one of claims 17 to 26, under an acidic condition:

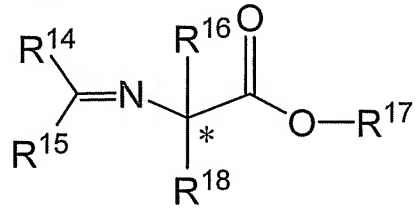


(VI)

(where R^{14}, R^{15}, R^{16}, R^{17} and R^{18} are the same groups as defined above).

29. (Withdrawn) A method for producing an optically active α-amino acid, comprising:

hydrolyzing an imino group ($R^{14}R^{15}C=N-$) of the compound represented by the formula (VI) that is obtained by the method of any one of claims 17 to 26, under an acidic condition:



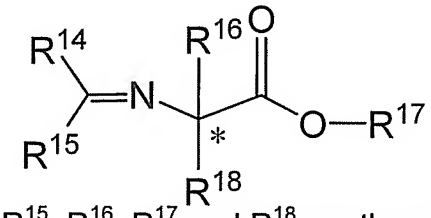
(VI)

(where R^{14}, R^{15}, R^{16}, R^{17} and R^{18} are the same groups as defined above), and

hydrolyzing an ester group ($-CO_2R^{17}$) of the acid hydrolyzed product under an acidic or basic condition.

30. (Withdrawn) A method for producing an optically active α-amino acid, comprising:

hydrolyzing an ester group ($-CO_2R^{17}$) of the compound represented by the formula (VI) that is obtained by the method of any one of claims 17 to 26, under a basic condition:



(VI)

(where R^{14}, R^{15}, R^{16}, R^{17} and R^{18} are the same groups as defined above), and

hydrolyzing an imino group ($R^{14}R^{15}C=N-$) of the basic hydrolyzed product under an acidic condition.